This listing of claims replaces all prior versions and listings:

Listing of Claims:

1. (currently amended) A computer program product encoding a computer program for executing on a computer system a computer process for simulating performance of a software system including one or more resources, the computer process comprising:

generating one or more workload definition sequences defining the software system, each workload definition sequence including a plurality of workload request nodes and each of the workload request nodes defining one or more component events, the workload definition sequence including at least two of the workload request nodes having a sequential relationship relative to different simulation intervals;

receiving the one or more workload definition ~~sequence~~ sequences into an evaluation engine; and

evaluating the one or more workload definition sequences to simulate the performance of the software system, the evaluating operation comprising:

selecting, according to a run-time policy and for at least one of the component events, one of a plurality of hardware model instances associated with one of the one or more resources included in the software system.

2. (currently amended) The computer program product of claim 1 wherein each request node is defined independently of any of ~~a specific~~ the hardware model ~~instance~~ instances.

3. (currently amended) The computer program product of claim 1 wherein each workload request node defines a transaction associated with ~~a resource~~ one of the one or more resources included in the software system.

4. (canceled)

5. (original) The computer program product of claim 1 wherein the one or more workload sequences are generated prior to the receiving and evaluating operations and substantially define all workload request nodes for simulating performance of the software system.

6. (currently amended) The computer program product of claim 1 wherein each workload request node defines a device option characterizing constraints on how the workload request node may be assigned to ~~a resource~~ one of the one or more resources included in the software system.

7. (original) The computer program product of claim 1 wherein at least one workload sequence includes a fork node defining a split of one workload sequence branch into a plurality of workload sequence branches.

8. (original) The computer program product of claim 1 wherein at least one workload sequence includes a join node defining a combination of a plurality of workload sequence branches into a single workload sequence branch.

9. (original) The computer program product of claim 1 wherein the computer process further comprises:

receiving at least one of a monitoring trace, statistical data, and a workload specification to generate the one or more workload definition sequences.

10. (currently amended) The computer program product of claim [[1]] 9 wherein the operation of receiving at least one of a monitoring trace, statistical data, and a workload specification comprises:

receiving the monitoring trace defining a sequence of software system requests relating to an application request associated with the application.

11. (currently amended) The computer program product of claim [[1]] 9 wherein the operation of receiving at least one of a monitoring trace, statistical data, and a workload specification comprises:

receiving the statistical data defining a statistical distribution of one or more application requests associated with the application.

12. (currently amended) The computer program product of claim [[1]] 9 wherein the operation of receiving at least one of a monitoring trace, statistical data, and a workload specification comprises:

receiving the workload specification defining a set of resource request descriptions associated with the software system.

13. (currently amended) The computer program product of claim 1 wherein each workload definition sequence comprises a start node associated with a start time, and the ~~simulating~~ evaluating operation comprises:

activating at least one of the workload definition sequences, if the start time associated with the start node of the workload definition sequence satisfies the simulation interval value.

14. (currently amended) The computer program product of claim 1 wherein ~~the simulation operation comprises:~~

~~translating at least one of the workload request nodes into~~ said one or more component events are recorded in an event queue.

15. (canceled)

16. (canceled)

17. (currently amended) The computer program product of claim 14 where the evaluating operation further comprises:

receiving, prior to the selecting operation, one of the component events from the event queue;

identifying, prior to the selecting operation, a resource of the one or more resources included in the software system associated with the component event; and

~~scheduling the component event with an instance of a hardware model associated with the resource in the software system; and~~

simulating, after the selecting operation, the component event received from the event queue using the ~~instance of the hardware model~~ selected one of the plurality of hardware model instances.

18. (currently amended) A performance simulation system for simulating performance of a software system, the performance simulation system comprising:

a workload generator generating one or more workload definition sequences defining the software system, each workload definition sequence including a plurality of workload request nodes and each of the workload request nodes defining one or more component events, the workload definition sequence including at least two of the workload request nodes having a sequential relationship relative to different simulation intervals; and

an evaluation engine receiving the one or more workload simulation sequences and evaluating the one or more workload definition sequences including by scheduling, according to a run-time policy and for at least one of the component events, one of a plurality of hardware model instances each representing a resource included in the software system to simulate the performance of the software system.

19. (currently amended) The performance simulation system of claim 18 wherein each workload request node defines a transaction associated with a ~~resource~~ one of the resources included in the software system.

20. (canceled)

21. (original) The performance simulation system of claim 18 wherein each workload request node defines a device option characterizing constraints on how the workload request node may be assigned to a resource in the software system.

22. (original) The performance simulation system of claim 18 wherein at least one workload sequence includes a fork node defining a split of one workload sequence branch into a plurality of workload sequence branches.

23. (original) The performance simulation system of claim 18 wherein at least one workload sequence includes a join node defining a combination of a plurality of workload sequence branches into a single workload sequence branch.

24. (original) The performance simulation system of claim 18 wherein each workload definition sequence comprises a start node associated with a start time, and the evaluation engine comprises:

a simulation clock incrementing a simulation interval value; and

an activator activating one of the workload definition sequences, if the start time associated with the start node of the workload definition sequence satisfies the simulation interval value.

25. (currently amended) The performance simulation system of claim 18 wherein the evaluation engine comprises a sequence processor translating ~~at least one of~~ each of the workload request nodes into their defined one or more component events.

26. (original) The performance simulation system of claim 25 wherein the evaluation engine comprises:

an event queue receiving the component events from the sequence processor.

27. (currently amended) The performance simulation system of claim 25 wherein the evaluation engine further comprises a scheduler module that performs the scheduling operation and is capable of scheduling all of the component events with hardware model instances that each represent ~~assigning each component event to an instance of a hardware model representing~~ a resource in the software system.

28. (canceled)

29. (currently amended) The performance simulation system of claim 18 wherein the evaluation engine comprises a simulator determining a duration of a component event ~~assigning to an instance of a hardware model~~ scheduled for one of the plurality of hardware model instances.

30. (currently amended) A method of simulating performance of a software system including one or more resources, the method comprising:

generating one or more workload definition sequences defining the software system, each workload definition sequence including a plurality of workload request nodes and each of the workload request nodes defining one or more component events, the workload definition sequence including at least two of the workload request nodes having a sequential relationship relative to different simulation intervals;

receiving the one or more workload definition ~~sequence~~ sequences into an evaluation engine; and

evaluating the one or more workload definition sequences to simulate the performance of the software system, the evaluating operation comprising:

selecting, according to a run-time policy and for at least one of the component events, one of a plurality of hardware model instances associated with one of the one or more resources included in the software system.

31. (currently amended) The method of claim 30 wherein each request node is defined independently of any of ~~a specific~~ the hardware model ~~instance~~ instances.

32. (currently amended) The method of claim 30 wherein each workload request node defines a transaction associated with ~~a resource~~ one of the one or more resources included in the software system.

33. (canceled)

34. (original) The method of claim 30 wherein the one or more workload sequences are generated prior to the receiving and evaluating operations and substantially define all workload request nodes for simulating performance of the software system.

35. (currently amended) The method of claim 30 wherein each workload definition sequence comprises a start node associated with a start time, and the ~~simulating~~ evaluating operation comprises:

activating at least one of the workload definition sequences, if the start time associated with the start node of the workload definition sequence satisfies the simulation interval value.

36. (currently amended) The method of claim 30 wherein ~~the simulation operation comprises:~~

~~translating at least one of the workload request nodes into~~ said one or more component events are recorded in an event queue.

37. (canceled)

38. (canceled)

39. (currently amended) The method of claim 36 where the evaluating operation further comprises:

receiving, prior to the selecting operation, one of the component events from the event queue;

identifying, prior to the selecting operation, a resource of the one or more resources included in the software system associated with the component event; and

~~scheduling the component event with an instance of a hardware model associated with the resource in the software system; and~~

simulating, after the selecting operation, the component event received from the event queue using the ~~instance of the hardware model~~ selected one of the plurality of hardware model instances.

40. (new) The computer program product of claim 1 wherein the run-time policy comprises a scheduling policy indicating which of the plurality of hardware model instances to select for said at least one of the component events based on which resource associated with a hardware model instance will first be free.

41. (new) The computer program product of claim 1 wherein the selecting operation is based on a current load of each of said one or more resources included in the software system.